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CENTRAL INTELLIGENCE AGENCY

REPORT NO

25X1A

INFORMATION REPORT

CD NO.

COUNTRY Germany (Soviet Zone)

DATE DISTR.

6 March 1951

SUBJECT

Radar Set at Finow Airfield

NO. OF PAGES

PLACE 25X1A ACQUIRED

INFO.

DATE OF

ETAIN OR DESTROY

NO. OF ENCLS. (LISTED BELOW)

5 sketches on

ditto

SUPPLEMENT TO

1 map* 6 photographs*

REPORT NO.

25X1

THIS IS UNEVALUATED INFORMATION

25X1X SOURCE

- Photographs were taken of the radar set at Finow Airfield at 4:00 p.m. on 20 September 1950 in partly cloudy weather. * The lead-in wires running down the mast led to a tent carefully camouflaged with branches. No power unit was observed.
- 2. Various rotations of the set were observed between 19 and 21 September 1950. Once the set rotated about 30 times around its vertical axis at a rate of one complete rotation every seven seconds. Otherwise only movements back and forth were seen, at greater intervals. During the intervals between the taking of photographs the set rotated. No service personnel were seen at the set when it was rotating. Once when a jet fighter was flying past at a distance of about 6 km, the set slowly followed the passing plane. The rotating motion was once interrupted by a movement in pendulum fashion during which the set moved to and fro about 400 before again slowly following the plane. ***

25X1C

For exact location of set, see Annex 1. For photographs of sets, see Annex 7a, b, c, d, e, and f. For positions from which photographs were taken, see Annex 2.

25X1C

25X1C

With a view to calculating the dimensions of the set, the photographs were evaluated with due consideration to distance, focal distance, and angle of sight. See Annex 3. The calculations were based on known measurements, such as the dimensions of the bricks of the smokestack (25x12x6.5 cm). It was calculated from the photograph attached as Annex 7a that the important dimension, the distance between the dipole carriers (see Technical Intelligence Guidance Manual, Electronics) is 410 cm. From the photograph attached as Annex 7d, the distance was calculated to be 400 cm. For further comparison, the photographs taken of other radar sets were checked in a similar way, and from these photographs the distance between the dipole carriers was also calculated to be approximately 4 meters. The measurements derived from photographs a to f are entered on Annexes 4 to 6. In order to facilitate a control of the calculations the center of the picture is marked by a circle on the attached photographs.

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25X1A

Description of the set: Antenna system I consists of two identical nine-element Yagi antennas arranged one above the other. The current is fed to a folded dipole behind which there is a reflector and in front of which there are seven directors. The distance between the two fremes is 1λ , or a wave length of four meters. Antenna system II consists of two identical dipoles set side by side which are fed through a line by means of Δ (delta) match (sio). One director each is fitted in front of these dipoles, and behind them is a rectangular reflector. The wave length is the same as in system I. The horizontal distance between the two dipoles is about $2\frac{1}{2}\lambda$. All the four lead-in wires run to the upper rotatable portion of a container in which the entire antenna system is mounted rotatable. Through the plugs set in the wall of this container the lead-in wires of the set run to the tent at the side of the set. The two cylinders fitted at right angles to each other and mounted below the container appear to receive the drive for the rotation of the set since it seems improbable that this rotation can be effected by an axle fitted in the center of the mast.

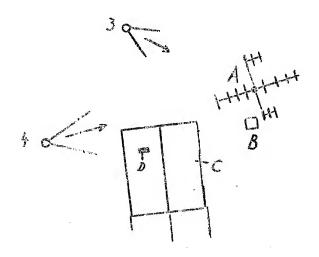
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25X1A

Sketch Indicating the Positions from which the Attached Photographs Were Taken





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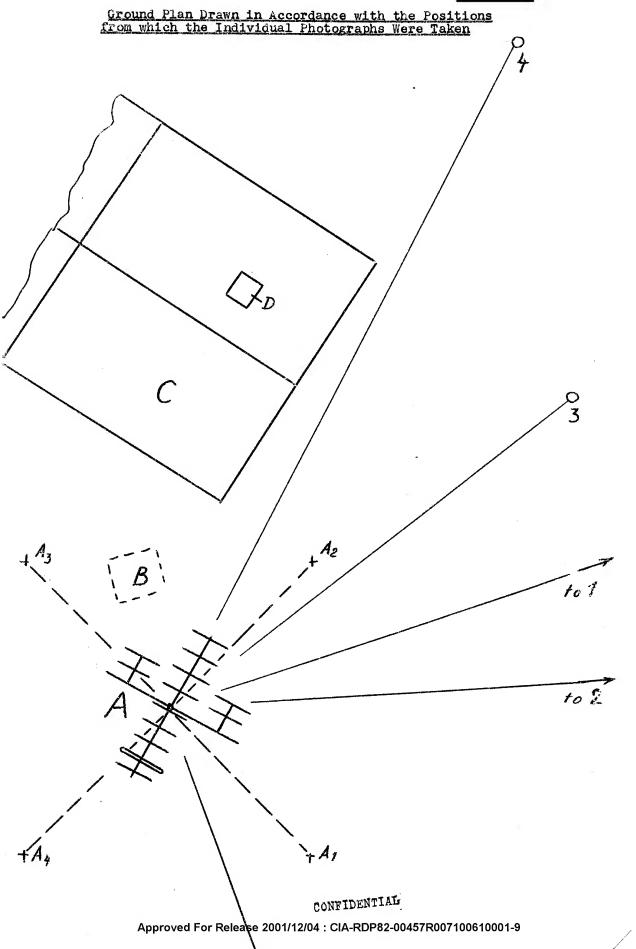
ladar set lant lamporary building hackestack

contion from which photograph a was taken contion from which photograph b was taken contion from which photographs c, f, f were taken contion from which photograph d was taken

Ast mated distances: From 1 to A = 45 meters
from 2 to A = 35 meters
from 3 to A = 15 meters
from 4 to A = 20 meters
from D to A = 12 meters
Width of gable wall of C = 8 meters

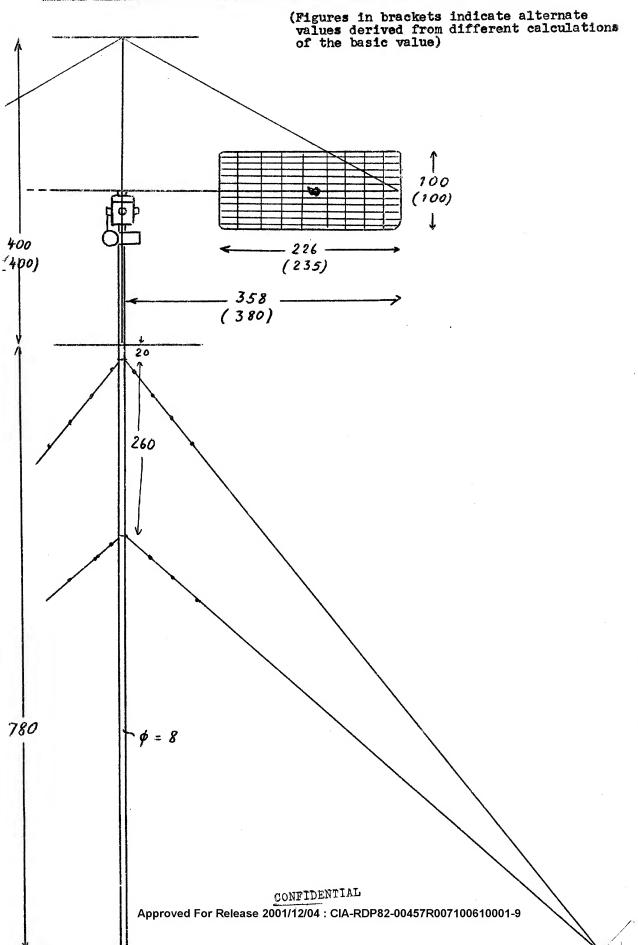
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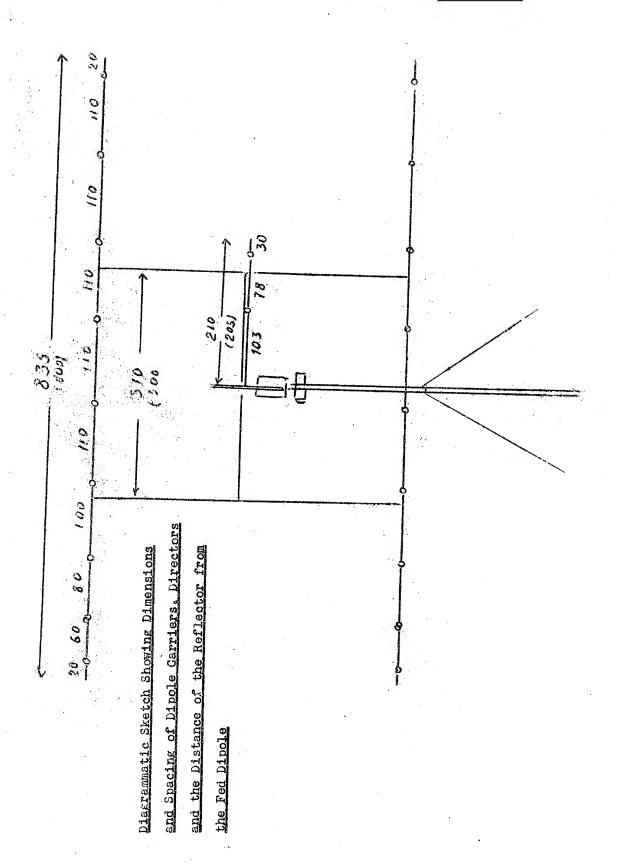
25X1A

Dimensions of Set as Calculated on the Basis of Photographs Taken

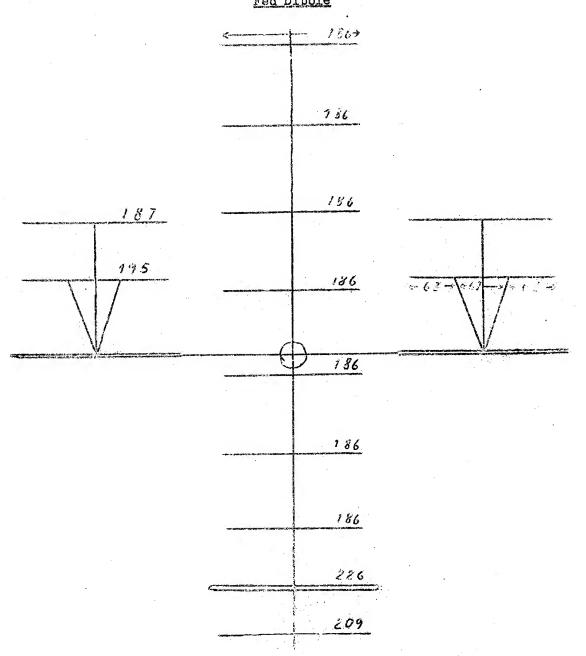




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Sketch Showing Length of Dipoles and Distances of Connections at the Fed Dipole



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COUNTRY East Germany REPORT NO. 25X1A

SUBJECT Radar Set at Finow Airfield DATE DISTR. 26 April 1954

25X1A

DATE OF INFO. REQUIREMENT NO. 25X1A

PLACE ACQUIRED

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25X1X

SOURCE:

Attached for your retention are negatives and photographs taken of the radar set at Finow Airfield. The report to which these photographs were originally attached was disseminated

Enclosures: 7 photograph

7 negatives

25X1A

25X1A

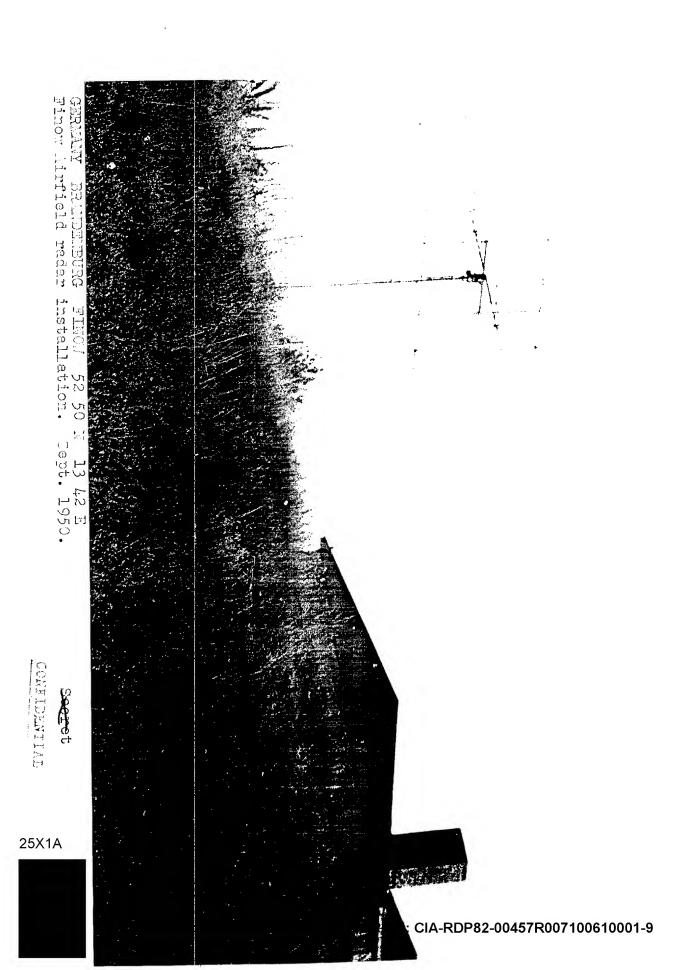
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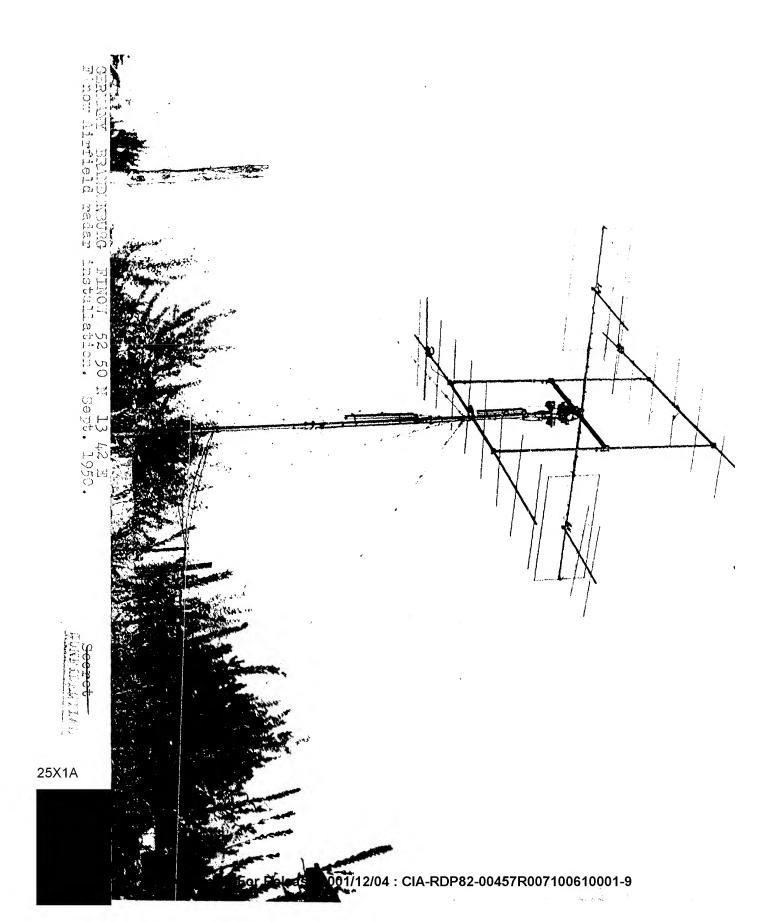
SECRET

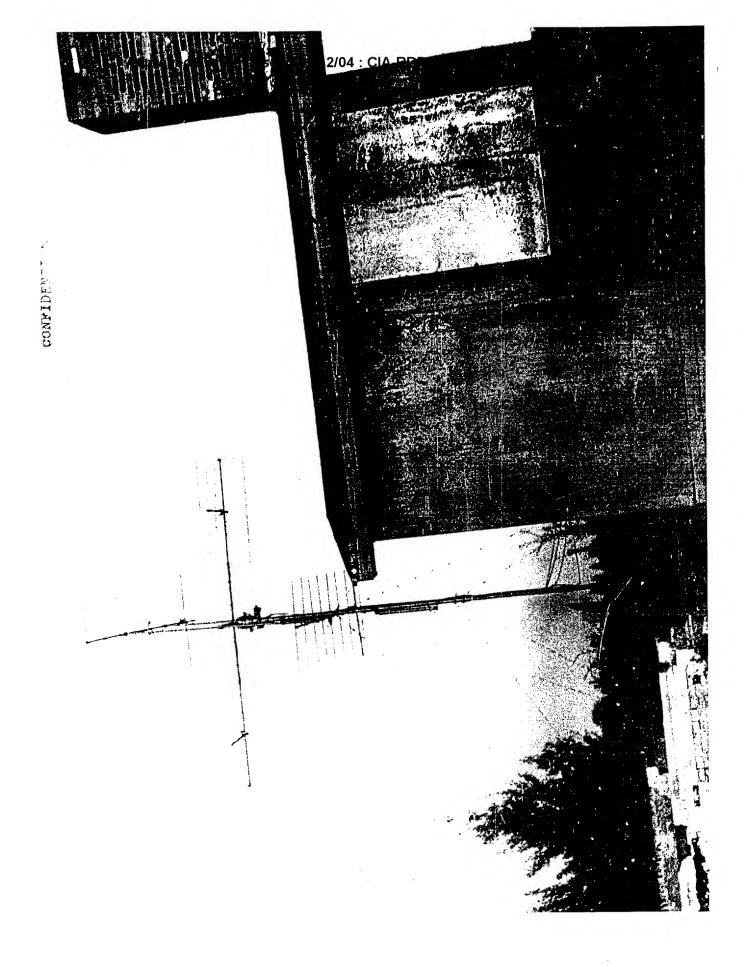
STATE ARMY NAVY AIR

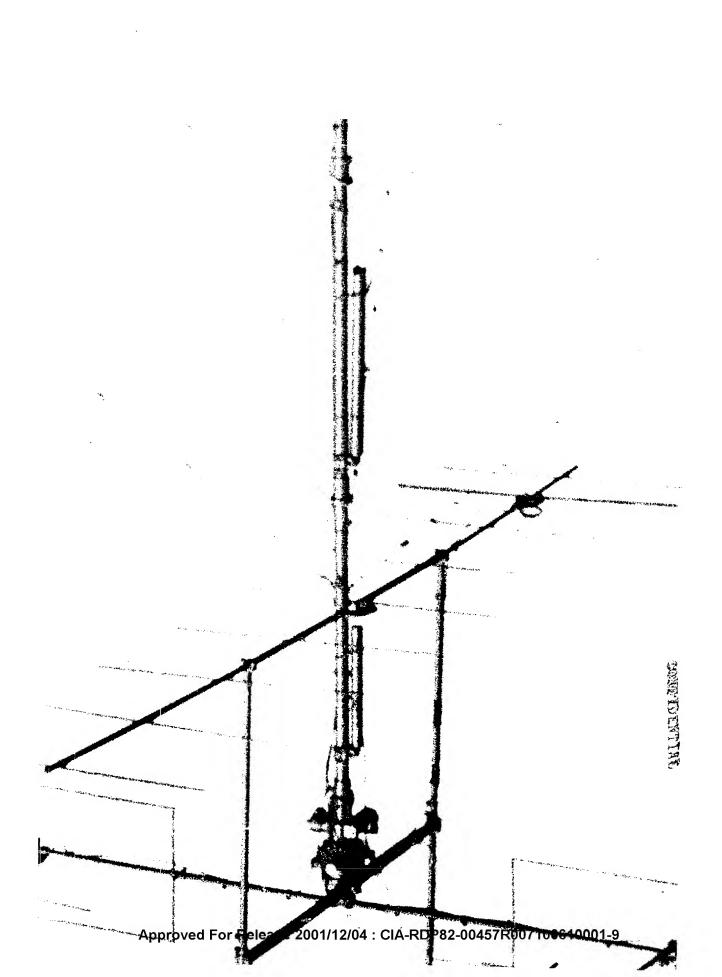
Washington Distribution Indicated By "X", Field Distribution Approved For Release 200

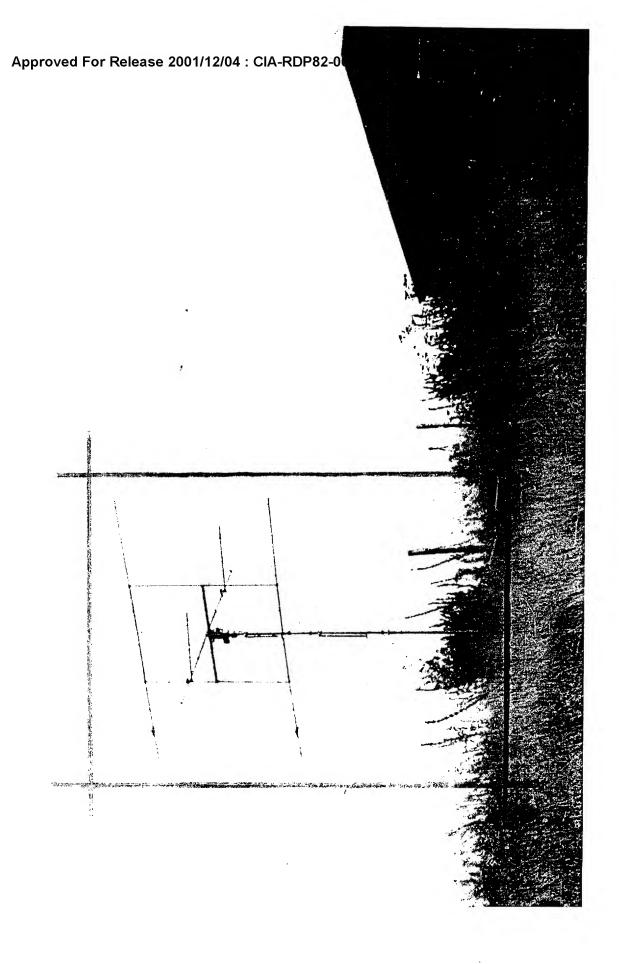


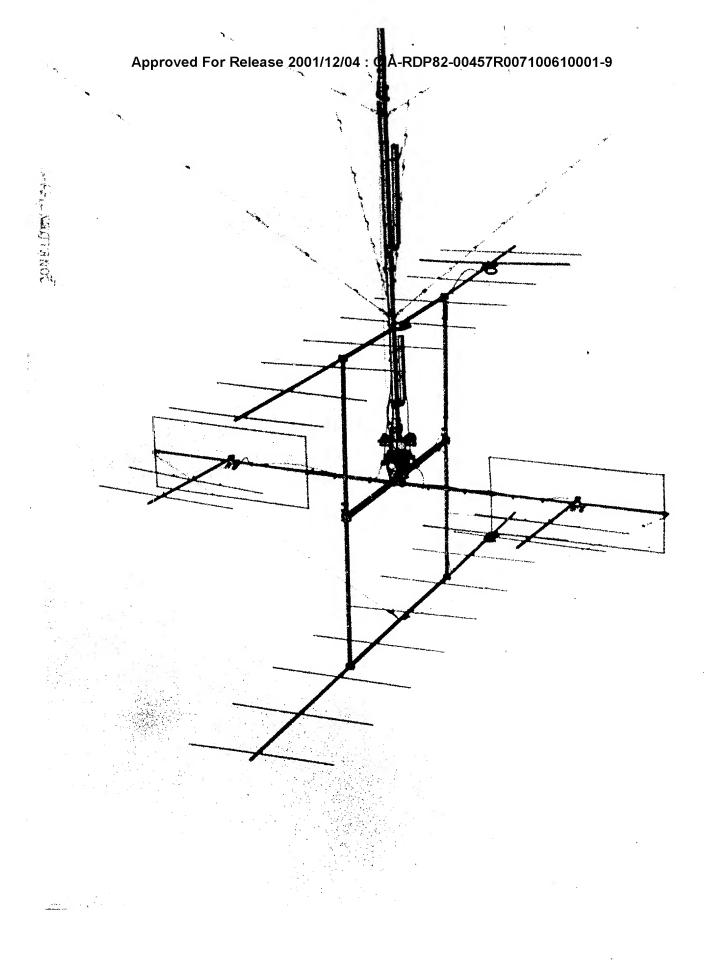












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